

In the Claims

Claims 9, 12-13, 17-20, and 22-23 are currently amended.

No claims are canceled.

Claim 33 is added.

Claims 9-14, 17-23, and 33 are pending and listed below.

1.-8. (Canceled)

9. (Currently Amended) A method comprising:

receiving a credential from a user at an input device in communication with a local machine having [[an OS]]a native operating system (OS), the local machine capable of being in communication with a plurality of different input devices each configured to enable the user to log on with the native OS to access the local machine;

translating the credential with one of a plurality of different coexisting credential provider modules for translating respectively different types of credentials into a common credential protocol, the common credential protocol being compatible with the native OS of the local machine, and the plurality of different coexisting credential provider modules also enabling the user to log on with the native OS to access the local machine with each corresponding different input device that is in communication with local machine;

communicating the translated credential having the common credential protocol through a credential provider Application Program Interface (API) to a logon user interface (UI) routine of the native OS, wherein the credential provider

API is configured to interface with each of the plurality of different coexisting credential provider modules;

passing the translated credential having the common credential protocol to a logon routine of the native OS from the logon UI routine;

~~using a component of calling the logon routine for the native OS to~~
authenticate the translated credential having the common credential protocol against a credential database; and

logging the user on with the native OS to access the local machine when the authentication is successful.

10. (Original) The method as defined in Claim 9, wherein the logging of the user on further comprises logging the user on to the local machine after a plurality of said credentials have been received, translated by a respective said different coexisting credential provider module, and authenticated successfully.

11. (Original) The method as defined in Claim 9, wherein the user is not logged on to the local machine at the time when the translated credentials are authenticated.

12. (Currently Amended) The method as defined in Claim 9, wherein the use of the component of the native OS to authenticate the translated credential having the common credential protocol against the credential database further comprises:

communicating the translated credential to an LSA; and
determining the authentication with the LSA against the credential database
that is selected from the group consisting of:

- a SAM database;
- a local database other than the SAM database;
- a remote credential database;
- a token protocol credential service;
- a challenge and response protocol service; and
- an AD and KDC at a domain remote from the local machine.

13. (Currently Amended) The method as defined in Claim 9, wherein
each said credential provider module is interoperable, through a credential
provider API, to the component of the native OS.

14. (Original) A computer-readable medium comprising instructions
that, when executed by a computer, perform the method of Claim 9.

15.-16. (Canceled)

17. (Currently Amended) A method comprising:
receiving a credential from a user at an input device in communication with
a local machine having [[an OS]]a native operating system (OS), the local
machine capable of being in communication with a plurality of different input

devices, each capable of receiving a credential from the user to enable the user to log on to access the local machine with the native OS;

translating the credential with a credential provider module that corresponds to the input device, wherein:

the credential provider module is one of a plurality of coexisting different said credential provider modules; and

each said credential provider module can perform a translation of a respectively different type of said credential received at a different said input device in communication with the local machine; and

each said translation of each said credential is in a common credential protocol, the common credential protocol being compatible with the native OS of the local machine;

communicating the translated credential having the common credential protocol through a credential provider interface to a logon [[UI]] user interface (UI) routine of the native OS, wherein the credential provider interface is configured to interface with each of the plurality of coexisting different said credential provider modules;

passing the translated credential having the common credential protocol to a logon routine of the native OS from the logon UI routine;

authenticating the translated credential against a credential database with the logon routine of the native OS; and

logging the user on to access the local machine with the native OS when the authentication is successful.

18. (Currently Amended) The method as defined in Claim 17, wherein the logging the user on to access the local machine with the native OS further comprises deferring the logging on of the user to access the local machine until the receiving, the translating, the communicating, the passing, and the authenticating successfully have been repeated for each of a plurality of said credentials.

19. (Currently Amended) The method as defined in Claim 17, wherein the user is not logged on to access the local machine when the translated credentials are authenticated against the credential database with the logon routine of the native OS.

20. (Currently Amended) The method as defined in Claim 17, wherein the authenticating of the translated credential against the credential database with the logon routine of the native OS further comprises:

communicating the translated credential to an LSA from the logon routine of the native OS; and

determining the authentication with the LSA against the credential database that is selected from the group consisting of:

- a SAM database;
- a local database other than the SAM database;
- a remote credential database;
- a token protocol credential service;

a challenge and response protocol service; and
an AD and KDC at a domain remote from the local machine.

21. (Original) A computer-readable medium comprising instructions that, when executed by a computer, perform the method of Claim 17.

22. (Currently Amended) A computer-readable medium comprising a credential provider module including instructions that, when executed by a local machine having ~~[[an OS]]~~ a native operating system (OS), receive and translate a credential into a credential protocol so as to be compatible for authentication by an authentication component of the native OS against a credential database for logging a user identified by the credential on with the native OS to access the local machine when the authentication is successful, wherein:

the translated credential ~~can be~~ received via ~~an interface to~~ a credential provider Application Programming Interface (API) of the authentication component of the native OS;

the ~~interface to~~ credential provider API of the authentication component of the native OS is compatible for receiving each of a plurality of said credentials from a corresponding plurality of different coexisting credential provider modules; and

each said different coexisting credential provider module can:

receive a respective different type of said credential from a respective input device, each respective input device capable of coupling to

the local machine and enabling the user to log on with the native OS to access the local machine; and

translate each said different type of said credential into the credential protocol so as to be compatible for authentication by the authentication component of the native OS against the credential database.

23. (Currently Amended) The computer-readable medium as defined in Claim 22, wherein the authentication component of the native OS comprises:

a logon [[UI]]user interface (UI) module;

an OS logon module for receiving Remote Procedure Call (RPC) calls from the [[log]]logon UI module; and

an LSA for determining the authentication, and in communication with, the credential database that is selected from the group consisting of:

a SAM database;

a local database other than the SAM database;

a remote credential database;

a token protocol credential service;

a challenge and response protocol service; and

an AD and KDC at a domain remote from the local machine.

24.-32. (Canceled)

33. (New) A method comprising:

receiving a credential from a user at an input device in communication with a local machine having an OS, the local machine capable of being in communication with a plurality of different input devices each configured to enable the user to log on with the OS to access the local machine;

translating the credential with one of a plurality of different coexisting credential provider modules for translating respectively different types of credentials into a common credential protocol, the plurality of different coexisting credential provider modules also enabling the user to log on with the OS to access the local machine with each corresponding different input device that is in communication with local machine;

using a component of the OS to authenticate the translated credential having the common credential protocol against a credential database; and

logging the user on with the OS to access the local machine when the authentication is successful, wherein the logging of the user on further comprises logging the user on to the local machine after a plurality of said credentials have been received, translated by a respective said different coexisting credential provider module, and authenticated successfully.